Oral health behavior, attitude and knowledge of dental caries among mothers of 0 – 71 months old children living in northern New Jersey, United States.

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INTRODUCTION

- One out of four children ages two through five years old is affected by dental caries. [1]
- A virulent form of caries is severe early childhood caries (ECC), which affects children younger than 71 months. [2]
- Despite the evolving nature of pediatric dentistry, parent's lack of knowledge about dental cavities remains a challenge. [3]
- Socioeconomic status plays a major role in the prevalence of dental caries. Data obtained from the 2009-2010 National Health and Nutrition Examination Survey showed that one in four children aged 3 to 5 years living at the poverty level had a significantly higher rate of untreated dental caries compared to children above the poverty level. [4]

PURPOSE

- The purpose of this study was to assess the maternal oral health knowledge of children younger than 71 months old; to determine the impact of OHEP, an oral health education program for mothers of children; on the oral health status of children. This program includes information on oral health care and prevention of dental caries in young children. This information is provided to mothers during the recall appointments and it is a part of their education during their biannual visits to the pediatrician.

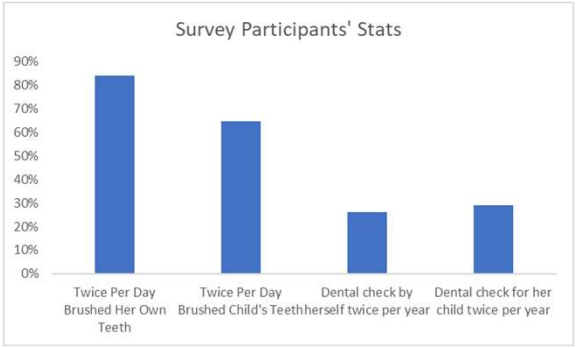
Materials and Methods

Upon arrival at the dental center, mothers were informed of the aims of the study and were given the option to participate. The survey distributed is comprised of 16 questions asking mothers about their oral health and that of their children at the dental clinic of Saint Joseph's University Medical Center in Paterson, NJ. Questions were divided into 4 groups. The first group of questions pertained to mother's demographic characteristics. The second group was about mother's oral health practices. The third group was about maternal knowledge of dental caries and the last group consisted of questions about mother's behavior towards their child's health care. Each question was assigned a point value which were then ultimately each survey was given an assigned score. An overall score for each survey was then calculated. Scores ranging 11 to 23 corresponded with fair knowledge. Scores 24 and above were correlated with high knowledge.

Once mothers completed the survey, they were given a handout containing information about the maternal and children's oral hygiene.

RESULTS

- A total of 31 surveys were collected. 58% of responding mothers were below 35 years old, 75% were Hispanic. 61% reported a maximum level of education obtained as high school and 61% had 2 or less number of children in their household.
- 77.5% had fair and high knowledge of oral hygiene.
- Chi Square and Fisher's exact test were used for this research.
- *P* values for the outcome variable, oral hygiene score were 0.72 for age, 0.36 for education, 0.30 for ethnicity and 1.00 for number of children in the household.
- P value for the relationship between the number of times mothers brush their own teeth in a day and their child's teeth was 0.03. P value for assessing the relationship between the number of times mothers visit a dentist for a regular checkup and the number of times they take their child to the dentist was 0.00. Finally, P value for the relationship between the number of maternal brushing and the number of sugar consumption by their children was 0.00.



DISCUSSION

- This research study assessed the knowledge and attitude of biological mothers of children who were 71 months old and younger who presented to the Saint Joseph's dental clinic for a recall or comprehensive care.
- There was no significant relationship between mother's age, level of education, ethnicity and number of children in the household with the mother's knowledge of oral hygiene.
- There was a statistically significant relationship between the number of times mothers brush their own teeth every day and their child's teeth.
- There was also a significant relationship between the number of times mothers visited a dentist for a regular checkup and the number of times they took their child to the dentist in a year.
- Finally, there was a significant relationship between the number of maternal brushing and the number of sugar consumption by their children.
- The dental clinic and the department of pediatrics are located in the same building. There is a robust referral system and cross collaboration between the two clinics and with the OBGYN clinic. Since, Saint Joseph's is a teaching hospital, during each appointment residents consistently provide information regarding pregnant women's oral hygiene, postpartum oral health and children's oral health to mothers.

CONCLUSION AND CLINICAL IMPLICATIONS

- P values were insignificant for the outcome variable, oral hygiene score. These findings are in contrast to some of the results in the literature.
- There was a statistically significant positive correlation between mother's knowledge in some of the aspects of their own oral hygiene and their children's.
- Close collaboration between dental team, pediatricians and the OBGYN clinic might have led to an increase in number of children's dental visits and consequently higher oral hygiene knowledge.

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